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are usually shipped to all the villages and towns around the lake.

This traffic is entirely in the hands of Min Chia boat people, for none of the boat owners are Yunnanese Chinese or Moslems. The fact is interesting, for it raises the problem of whence the Min Chia obtained a knowledge of boat building and navigation. The nearest places where large sailing boats are in use are the Irrawaddy at Bhamo, about three hundred miles from Ta Li, and the K'un Yang lake, near which stands K'un Ming, the provincial capital. This lake is two hundred and seventy miles from Ta Li, and the junks used there are in every way unlike those that ply on the Erh Hai at Ta Li. The Erh Hai boats, which have the distinction of sailing on what is probably the highest sheet of navigated water in the world (6,700ft.), are much larger than those on the K'un Yang lake, and many details of their construction suggest that they are the product of a long and independent development. The largest ships are fifty feet long, with a beam of six to eight feet, and are built of heavy walnut planks, pegged together without the use of nails, the joints being closed with lime and cement, not caulked. This method seems clumsy, but in fact they do not leak if well looked after. The boat is almost flat-bottomed, but is fitted with a very large rudder which, when in use, projects deeper than the bottom of the boat and serves as a keel to correct leeway. This rudder has to be taken up and shipped when the boat approaches shallow water.

The Min Chia count on the wind for propulsion, and such oars as exist are rudimentary and clumsy paddles only used for manoeuvring the large boats in calms where the water is too deep to use poles. Boats are fitted with a mast which is made of pine, and is often thirty feet long. The sail is made of rice straw mats, strengthened with bamboo lathes so that when lowered it folds on itself in concertina fashion. It is raised by hauling on a cowhide rope, which passes over

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the forked top of the mast, the slightly greasy cowhide acting as a lubricant in the absence of pulleys. All ropes and sheets used on these boats are made of this material which is, of course, very strong and enduring. The larger boats have a cabin at the prow, which is raised well above the water line, and thus seems at a distance to be the poop, as in Chinese junks. On Erh Hai boats the necessity of shipping the heavy cumbersome rudder in shallow water makes it impossible to have the cabin at the poop. The whole boat can also be covered in rainy weather with curved mat roofs fitted on a bamboo frame, and is thus weatherproof, which makes boating by far the most comfortable way of travelling in the rainy season.

In a stiff breeze the Erh Hai boats can make very fast passages, and sail fairly close to the wind, while when there is nothing but the slightest of airs it is still possible to sail them owing to the very large spread of the towering mat sail. On the other hand, they are admitted to be dangerous in the violent squally winds which sweep across the lake in winter. These winds off the Ts'ang Shan range are a peculiar feature of the winter climate of Ta Li, due to the conjunction of a very high mountain and the lake. They come at irregular intervals, without warning, and the direction of the wind is unpredictable. At one moment the air is still under a cloudless sky, at the next, with a roar like an express train, the squall sweeps down across the plain raising clouds of dust, and then is gone. A few minutes later another squall approaches, from the opposite direction. In such weather sailing is very dangerous, and the boatmen either hoist only a small part of the sail, or prefer to punt along the shallows.

The larger Erh Hai boats are usually handled by a crew of three or four, who are the owner and his family. Apart from hoisting the sail, which is heavy work requiring all hands,

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502 their only labour is to steer, or in calms, to punt. They often prefer to travel at night because in summer there is more wind after sundown, and if the wind fails it is tiring to have to do the hard work of punting or rowing in the hot sun. As they work, or sit idly steering the slow-moving boat, they beguile the time by singing improvised words to the one tune which Min Chia peasants always sing to. Time is no object. A trip from Shier Yu, the port of Ta Li, to Wa Shih or Shang Kuan may take four hours or less with a favourable wind, or seventeen hours if there is no wind at all. As they carry a cooking stove and provision of rice they are not dependent on the villages for food, while fish can often be bought from the fishermen on the lake itself.

579 489 The length and slowness of all travel in Yunnan is in fact the explanation of that indifference to time and punctuality which disturbs the foreign visitor. When a journey must in any case take several days, one more or less cannot matter, and as long as the stage point is reached in time for supper, it does not matter when the traveller starts. No Yunnanese would think of starting on a journey unless he allowed for a possible week's delay, through bad weather or—formerly a paramount consideration—delay due to unsafe roads and banditry. When the roads were still infested with robbers it was not uncommon for all travellers to wait in the last town below some dangerous pass until the authorities agreed to provide an escort, or until there were sufficient wealthy travellers assembled to pay for one. My arrival in one such town, some ten years ago, was hailed with delight, since I already had the escort which the local authorities were unwilling to provide for nearly fifty or sixty other travellers and four caravans of forty mules. All these, the next day, got safe and free escort over the pass which was known to be the haunt of a large gang of deserters from the provincial army.

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Ch'iang

III. Economic Life.

1. Communications, Roads, and Bridges.

Among the Ch'iang there are no telephones, radios, or telegraph lines. There are no newspapers, and no books excepting those written by the Chinese and possessed by the few who can read them. Chinese-built roads connect the cities and towns in the valleys. Even here no wheeled vehicles can be used—only "hwagers" and sedan chairs, riding horses, and pack animals. On the Chinese roads some carry loads on the ends of bien dan or poles, but many carry their loads on their backs. Between the Ch'iang homes and villages the roads are unpaved footpaths, very narrow and often very steep. Frequently they go over or along the sides of steep precipices. It is not strange that the Ch'iang generally walk and always carry their loads on their backs. News is passed along by word of mouth, and naturally it is sometimes inaccurate. [203]

The bridges resemble those of the Chinese and of their various neighbors in this region. A small creek may be waded, or crossed by stepping on large stones. Some bridges are merely logs or boards laid across the streams. One type of bridge is the false or corbelled arch. From both sides large timbers reach out one beyond the other, until they meet above the middle of the stream. A bridge often consists of a single bamboo cable. Two hollow wooden half-cylinders are tied securely around the cable. The person or baggage is tied to this, and when released slides half way across. Then the person pulls himself hand over hand the rest of the way, or the baggage is pulled to the opposite shore by means of a small rope. The larger rope bridges have nine or ten bamboo cables underfoot on which boards are laid, and four or more cables on each side. The longest bridges have several wooden trestles, the bridge sagging down between. As one walks over, the whole bridge shakes.

The rivers are too rapid for boats, which between Mou Chow and Yin Shiu Wan 茂秀湾 and between Wei Chow and Tsugulow are not even used as ferries.

2. Money, Marketing, Bartering, and Borrowing.

Chinese money is the currency of the Ch'iang. Until the latter part of the Manchu dynasty it was silver ingots or lump silver, then it was silver dollars. Now it is Chinese bank bills.

There is some buying and selling in the small villages. This is